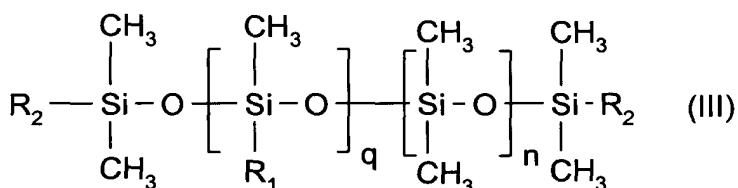
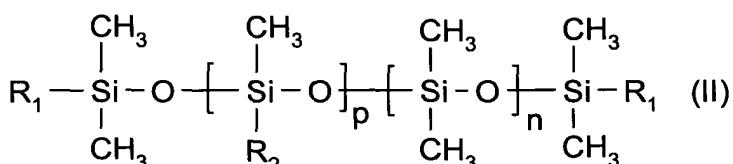
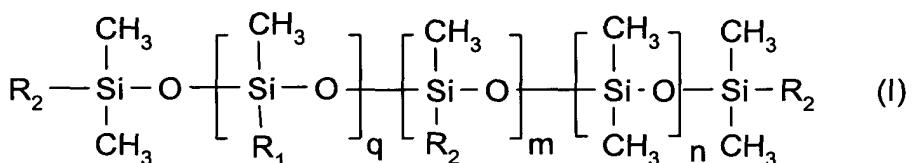


## CLAIMS

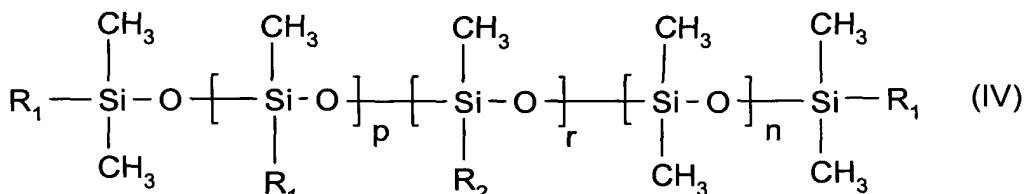
1. A composition comprising, in a cosmetically acceptable medium, at least one silicone with quaternary ammonium groups and at least one liquid fatty alcohol.

5

2. The cosmetic composition as claimed in claim 1, wherein said silicone with quaternary ammonium groups is selected from the group consisting of silicones corresponding to one of the following formulae:



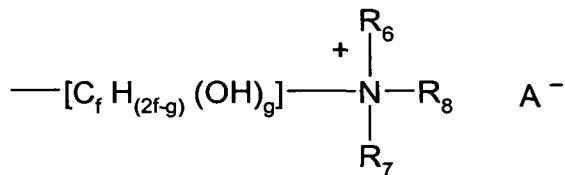
15



in which formulae:

- $R_1$ , which is identical or different, represents a linear or branched  $C_1-C_{30}$  alkyl group or phenyl group;
- $R_2$ , which is identical or different, represents  $-C_cH_{2c}-O-(C_2H_4O)_a-(C_3H_6O)_b-R_5$  or  $-C_cH_{2c}-O-(C_4H_8O)_a-R_5$ ;

5  $R_5$ , which is identical or different, is selected from the group consisting of the groups of the following formula:



- the radicals  $R_8$  independently represent a linear or branched  $C_{1-22}$  alkyl or  $C_{2-22}$  alkenyl radical, and optionally carrying one or more OH groups or represent a group  $C_hH_{2h}ZCOR_9$ ;
- $R_6$ ,  $R_7$  and  $R_9$ , which are identical or different, represent linear or branched  $C_{1-22}$  alkyl or  $C_{2-22}$  alkenyl radicals optionally carrying one or more OH groups, or  $R_7$  may form with part of  $R_8$  a heterocycle ,

15 -  $m$  varies from 0 to 20;

-  $n$  varies from 0 to 500;

-  $p$  varies from 1 to 50;

-  $q$  varies from 0 to 20;

-  $r$  varies from 1 to 20;

20 -  $a$  varies from 0 to 50;

-  $b$  varies from 0 to 50;

-  $c$  varies from 0 to 4;

-  $f$  varies from 0 to 4,

-  $g$  varies from 0 to 2,

25 -  $h$  varies from 1 to 4,

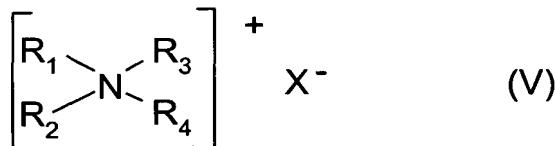
$Z$  represents an oxygen atom or  $NH$ , and

$A^-$  represents a monovalent inorganic or organic anion.

3. The composition as claimed in claim 2, wherein said silicone is of formula (III).
4. The composition as claimed in claim 3, wherein said silicone corresponds to formula (III) in which at least one of the following conditions are satisfied:
  - 5 - c is equal to 2 or 3;
  - $R_1$  denotes the methyl group;
  - a and b are equal to zero;
  - n varies from 0 to 100;
  - q is equal to 0;
- 10 - f = 3;
- g = 1;
- $R_6$  and  $R_7$  denote a methyl group;
- $R_8$  denotes the radical  $-(CH_2)-NHCOR_9$ .
- 15 5. The composition as claimed in claim 1, wherein said silicone is Quaternium-80.
6. The composition as claimed in claim 1, wherein the silicone with quaternary ammonium groups is provided in the form of a solution, suspension or dispersion in water.
- 20 7. The composition as claimed in claim 1, comprising the silicone with quaternary ammonium groups in an amount of 0.01 to 10% by weight relative to the total weight of the composition.
- 25 8. The composition as claimed in claim 1, wherein the liquid fatty alcohol is selected from the group consisting of saturated or unsaturated, linear or branched C<sub>8</sub>-C<sub>30</sub> fatty alcohols optionally oxyalkylenated with 1 to 15 mol of alkylene oxide or polyglycerolated with 1 to 6 mol of glycerol.
- 30 9. The composition as claimed in claim 1, wherein the liquid fatty alcohol is selected from the group consisting of lauryl, myristyl, isostearyl, isocetyl and oleyl

alcohols, lauryl alcohols oxyethylenated with 2 to 6 mol of ethylene oxide and mixtures thereof.

10. The composition as claimed in claim 1, wherein the liquid fatty alcohol is present in an amount ranging from 0.01% to 15% by weight relative to the total weight of the composition.
11. The composition as claimed in claim 10, wherein the liquid fatty alcohol is present in an amount ranging from 0.1% to 5% by weight relative to the total weight of the composition.
12. The composition as claimed in claim 1, further comprising at least one cationic surfactant.
13. The composition as claimed in claim 12, wherein the cationic surfactant is selected from the group consisting of the salts of optionally polyoxyalkylenated primary, secondary or tertiary fatty amines, quaternary ammonium salts and mixtures thereof.
14. The composition as claimed in claim 13, comprising a quaternary ammonium salt selected from the group consisting of:
  - those which have the following general formula (V):



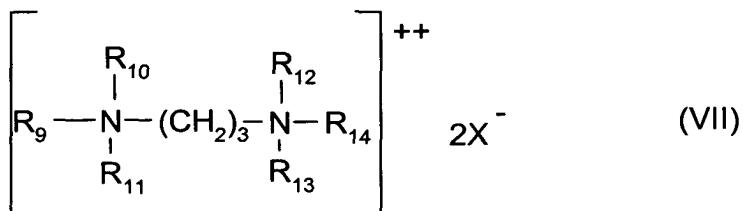
25

in which the symbols R<sub>1</sub> to R<sub>4</sub>, which may be identical or different, represent a linear or branched aliphatic radical containing from 1 to 30 carbon atoms, or an aromatic radical such as aryl or alkylaryl; X<sup>-</sup> is an anion selected from the group

consisting of halides, phosphates, acetates, lactates, (C<sub>2</sub>-C<sub>6</sub>)alkyl sulfates, alkyl or alkylaryl sulfonates;

- the quaternary ammonium salts of imidazoline;
- the diquaternary ammonium salts of formula (VII):

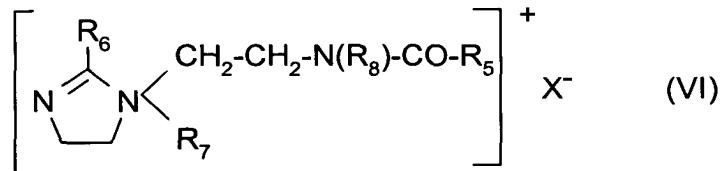
5



in which  $R_9$  denotes an aliphatic radical comprising about from 16 to 30 carbon atoms.  $R_{10}$ ,  $R_{11}$ ,  $R_{12}$ ,  $R_{13}$  and  $R_{14}$ , which are identical or different, are selected

10 from the group consisting of hydrogen or an alkyl radical comprising from 1 to 4 carbon atoms, and  $X^-$  is an anion selected from the group consisting of halides, acetates, phosphates, nitrates and methyl sulfates;  
- the quaternary ammonium salts containing at least one ester functional group.

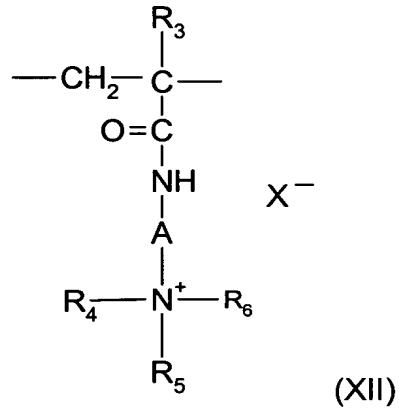
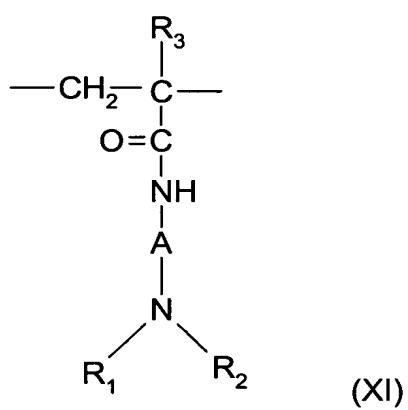
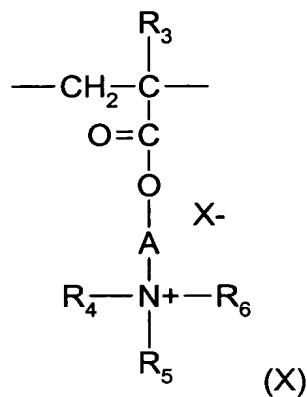
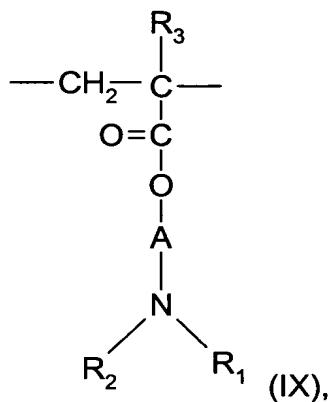
15 15. The composition as claimed in claim 13, comprising a quaternary ammonium salt of imidazoline selected from the group consisting of those of the following formula (VI):



20 in which  $R_5$  represents an alkenyl or alkyl radical comprising from 8 to 30 carbon atoms, for example derived from tallow fatty acids,  $R_6$  represents a hydrogen atom, a  $C_1$ - $C_4$  alkyl radical or an alkenyl or alkyl radical comprising from 8 to 30 carbon atoms,  $R_7$  represents a  $C_1$ - $C_4$  alkyl radical,  $R_8$  represents a hydrogen atom, a  $C_1$ - $C_4$  alkyl radical,  $X$  is an anion selected from the group consisting of

the group comprising halides, phosphates, acetates, lactates, alkyl sulfates, alkyl or alkylaryl sulfonates.

16. The composition as claimed claim 12, wherein the cationic surfactant is selected from the group consisting of behenyltrimethylammonium chloride, cetyltrimethylammonium chloride, Quaternium-83, behenylamidopropyl-2,3-dihydroxypropyldimethylammonium chloride and palmitylamidopropyltrimethylammonium chloride.
- 10 17. The composition as claimed claim 12, wherein the cationic surfactant is present in an amount of 0.05 to 10% by weight relative to the total weight of the composition.
- 15 18. The composition as claimed in claim 1, further comprising at least one cationic polymer.
19. The composition as claimed in claim 18, which comprises at least two different cationic polymers.
- 20 20. The composition as claimed in claim 18, wherein the cationic polymer is selected from the group consisting of those cationic polymers which contain units containing primary, secondary, tertiary and/or quaternary amine groups which may either form part of the main polymer chain, or may be carried by a side substituent which is directly attached to it.
- 25 21. The composition as claimed in claim 18, wherein said cationic polymer is selected from the group consisting of:
  - (1)the homopolymers or copolymers derived from acrylic or methacrylic esters or amides and comprising at least one of the units of the following formulae:
- 30



5 in which:

$\text{R}_3$ , which are identical or different, denote a hydrogen atom or a  $\text{CH}_3$  radical;

$\text{A}$ , which are identical or different, represent a linear or branched alkyl group of 1 to 6 carbon atoms or a hydroxyalkyl group of 1 to 4 carbon atoms;

$\text{R}_4$ ,  $\text{R}_5$ ,  $\text{R}_6$ , which are identical or different, represent an alkyl group having from 1 to 18 carbon atoms or a benzyl radical;

$\text{R}_1$  and  $\text{R}_2$ , which are identical or different, represent hydrogen or an alkyl group having from 1 to 6 carbon atoms;

$\text{X}$  denotes an anion derived from an inorganic or organic acid,

15 (2) cationic polysaccharides,

(3) polymers consisting of piperazinyl units and of alkylene or hydroxyalkylene divalent radicals with straight or branched chains, optionally interrupted by oxygen,

sulfur or nitrogen atoms or by aromatic or heterocyclic rings, as well as the oxidation and/or quaternization products of these polymers,

5 (4) water-soluble polyaminoamides prepared by polycondensation of an acid compound with a polyamine; these polyaminoamides may be crosslinked with an epihalohydrin, a diepoxide, a dianhydride, an unsaturated dianhydride, a diunsaturated derivative, a bishalohydrin, a bisazetidinium, a bishaloacyldiamine, an alkyl bishalide or else with an oligomer resulting from the reaction of a difunctional compound which is reactive toward a bishalohydrin, a bisazetidinium, a 10 bishaloacyldiamine, an alkyl bishalide, an epihalohydrin, a diepoxide or a diunsaturated derivative; the crosslinking agent being employed in proportions ranging from 0.025 to 0.35 mol per amine group of the polyaminoamide; these polyaminoamides may be alkylated or, if they include one or more tertiary amine functional groups, quaternized,

15

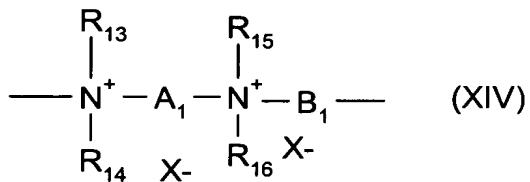
(5) polyaminoamides resulting from the condensation of polyalkylenepolyamines with polycarboxylic acids, followed by an alkylation with bifunctional agents,

20 (6) polymers obtained by reaction of a polyalkylenepolyamine containing two primary amine groups and at least one secondary amine group with a dicarboxylic acid selected from the group consisting of diglycolic acid and saturated aliphatic dicarboxylic acids containing from 3 to 8 carbon atoms,

(7) cyclopolymers of alkyldiallylamine or of dialkyldiallylammonium,

25

(8) quaternary diammonium polymers containing repeat units corresponding to the formula:



formula (XIV) in which:

$\text{R}_{13}$ ,  $\text{R}_{14}$ ,  $\text{R}_{15}$  and  $\text{R}_{16}$ , which are identical or different, represent aliphatic, alicyclic or

arylaliphatic radicals containing from 1 to 20 carbon atoms or lower

5 hydroxyalkylaliphatic radicals, or else  $\text{R}_{13}$ ,  $\text{R}_{14}$ ,  $\text{R}_{15}$  and  $\text{R}_{16}$ , together or separately, form, with the nitrogen atoms to which they are attached, heterocycles optionally containing a second heteroatom other than nitrogen, or else  $\text{R}_{13}$ ,  $\text{R}_{14}$ ,  $\text{R}_{15}$  and  $\text{R}_{16}$  represent a linear or branched  $\text{C}_1\text{-}\text{C}_6$  alkyl radical substituted by a nitrile, ester, acyl, amide or  $-\text{CO-O-R}_{17}\text{-D}$  or  $-\text{CO-NH-R}_{17}\text{-D}$  group where  $\text{R}_{17}$  is an alkylene and D a

10 quaternary ammonium group;

$\text{A}_1$  and  $\text{B}_1$  represent polymethylene groups containing from 2 to 20 carbon atoms which may be linear or branched, saturated or unsaturated and which may contain, bonded to or inserted into the main chain, one or more aromatic rings, or one or more oxygen or sulfur atoms or sulfoxide, sulfone, disulfide, amino, alkylamino,

15 hydroxyl, quaternary ammonium, ureido, amide or ester groups, and

$\text{X}^-$  denotes an anion derived from an inorganic or organic acid;

$\text{A}_1$ ,  $\text{R}_{13}$  and  $\text{R}_{15}$ , with the two nitrogen atoms to which they are attached, may form a piperazine ring; in addition if  $\text{A}_1$  denotes a saturated or unsaturated, linear or branched alkylene or hydroxyalkylene radical,  $\text{B}_1$  may also denote a group  $(\text{CH}_2)_n\text{-}$

20  $\text{CO-D-OC-(CH}_2)_n\text{-}$

in which D denotes:

a) a glycol residue of formula:  $-\text{O-Z-O-}$ , where Z denotes a linear or branched hydrocarbon radical or a group corresponding to one of the following formulae:

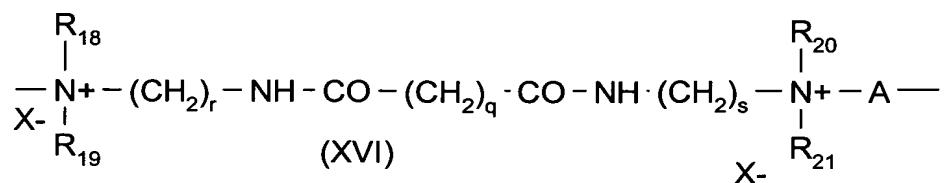
$-(\text{CH}_2\text{-CH}_2\text{O})_x\text{-CH}_2\text{-CH}_2\text{-}$

25  $-\text{[CH}_2\text{-CH(CH}_3\text{)-O]}_y\text{-CH}_2\text{-CH(CH}_3\text{)-}$

where x and y denote an integer from 1 to 4, representing a defined and unique degree of polymerization or any number from 1 to 4 representing a mean degree of polymerization;

- b) a dissecondary diamine residue such as a piperazine derivative;
- c) a diprimary diamine residue of formula:  $-\text{NH}-\text{Y}-\text{NH}-$ , where Y denotes a linear or branched hydrocarbon radical or else the divalent radical  $-\text{CH}_2-\text{CH}_2-\text{S}-\text{S}-\text{CH}_2-\text{CH}_2-$ ;
- 5 d) a ureylene group of formula:  $-\text{NH}-\text{CO}-\text{NH}-$ ;  
preferably,  $\text{X}^-$  is a monovalent inorganic or organic anion,

(9) polyquaternary ammonium polymers consisting of units of formula (XVI):



10

in which formula:

$R_{18}$ ,  $R_{19}$ ,  $R_{20}$  and  $R_{21}$ , which are identical or different, represent a hydrogen atom or a methyl, ethyl, propyl,  $\beta$ -hydroxyethyl,  $\beta$ -hydroxypropyl or  $-CH_2CH_2(OCH_2CH_2)_pOH$  radical.

15 radical,

where  $p$  is equal to 0 or to an integer between 1 and 6, provided that  $R_{18}$ ,  $R_{19}$ ,  $R_{20}$  and  $R_{21}$  do not simultaneously denote a hydrogen atom,

r and s, which are identical or different, are integers between 1 and 6.

q is equal to 0 or to an integer between 1 and 34,

20 X denotes a halogen atom,

A denotes a radical of a dihalide or preferably represents  $-\text{CH}_2-\text{CH}_2-\text{O}-\text{CH}_2-\text{CH}_2-$ .

(10) quaternary vinylpyrrolidone and vinylimidazole polymers.

## 25 (11) polyamines.

(12) the crosslinked polymers of methacryloyloxy(C<sub>1</sub>-C<sub>4</sub>) alkyl)tri(C<sub>1</sub>-C<sub>4</sub>) alkyl)ammonium salts, and

(13) polyalkyleneimines, polymers containing vinylpyridine or vinylpyridinium units, condensates of polyamines and epichlorohydrin, polyquaternary ureylenes and chitin derivatives.

5

22. The composition as claimed in claim 21, wherein said cationic polymer is selected from the group consisting of cationic cyclopolymers, cationic polysaccharides, quaternary polymers of vinylpyrrolidone and of vinylimidazole, and mixtures thereof.

10

23. The composition as claimed in claim 22, wherein said cationic polymer is a cyclopolymer selected from the group consisting of homopolymers of diallyldimethylammonium chloride and copolymers of acrylamide and diallyldimethylammonium chloride.

15

24. The composition as claimed in claim 22, wherein said cationic polymer is a polysaccharide selected from the group consisting of starches modified with a 2,3-epoxypropyltrimethylammonium salt, guar gums modified with a 2,3-epoxypropyltrimethylammonium salt and hydroxyethylcelluloses which have reacted with an epoxide substituted with a trimethylammonium group.

20

25. The composition as claimed in claim 22, wherein said cationic polymer is a quaternary polymer of vinylpyrrolidone and of vinylimidazole selected from the group consisting of copolymers of vinylpyrrolidone and of salts of methylvinylimidazolium.

26. The composition as claimed in claim 19, which comprises at least one cationic polysaccharide and at least one quaternary polymer of vinylpyrrolidone and of vinylimidazole.

30

27. The composition as claimed in claim 19, which comprises at least one homopolymer of diallyldimethylammonium chloride and at least one quaternary polymer of vinylpyrrolidone and of vinylimidazole.

5 28. The composition as claimed in claim 18, wherein the cationic polymer is present in an amount ranging from 0.001% to 20% by weight relative to the total weight of the composition.

10 29. The composition as claimed in claim 1, further comprising at least one thickening agent.

30. The composition as claimed in claim 29, wherein said thickening agent is nonionic.

15 31. The composition as claimed in claim 30, wherein said nonionic thickening agent is selected from the group consisting of:

- nonionic homopolymers and copolymers containing ethylenically unsaturated monomers of the ester and/or amide type;
- homo- and copolymers of vinylpyrrolidone, and
- polysaccharides.

20 32. The composition as claimed in claim 29, wherein said thickening agent is selected from the group consisting of polyacrylamides, methyl methacrylate/ethylene glycol dimethacrylate copolymers, butyl methacrylate/methyl methacrylate copolymers, and polymethyl methacrylates.

25 33. The composition as claimed in claim 29, wherein said thickening agent is a crosslinked homopolymer of vinylpyrrolidone.

30 34. The composition as claimed in claim 29, wherein said thickening agent is selected from the group consisting of glucans, modified or unmodified starches,

amylose, amylopectin, glycogen, dextrans, celluloses and derivatives thereof (methylcelluloses, hydroxyalkylcelluloses, ethylhydroxyethylcelluloses), mannans, xylans, lignins, arabans, galactans, galacturonans, chitin, chitosans, glucuronoxylans, arabinoxylans, xyloglucans, glucomannans, pectic acids and 5 pectins, arabinogalactans, carrageenans, agars, gums arabic, gums Tragacanth, Ghatti gums, Karaya gums, carob gums, galactomannans and mixtures thereof.

35. The composition as claimed in claim 29, wherein the thickening agent is present in an amount of between 0.001% and 20% by weight relative to the total 10 weight of the composition.

36. The composition as claimed in claim 1, further comprising at least one surfactant selected from the group consisting of anionic, nonionic and amphoteric surfactants.

15 37. The composition as claimed in claim 1, further comprising at least one additional conditioner.

20 38. The composition as claimed in claim 37, wherein the additional conditioner is selected from the group consisting of silicones, carboxylic esters comprising at least 12 carbon atoms, vegetable oils, mineral oils, synthetic oils and mixtures thereof.

25 39. The composition as claimed in claim 1, wherein the cosmetically acceptable medium comprises water and, optionally, a cosmetically acceptable solvent.

40. The composition as claimed in claim 39, wherein the medium comprises a 30 cosmetically acceptable solvent selected from the group consisting of C<sub>1</sub>-C<sub>4</sub> lower alcohols, alkylene glycols, polyol ethers, C<sub>5</sub>-C<sub>10</sub> alkanes, acetone, methyl ethyl ketone, C<sub>1</sub>-C<sub>4</sub> alkyl acetates, dimethoxyethane, diethoxyethane, and mixtures thereof.

41. The composition as claimed in claim 1, further comprising at least one of the following:  
a anionic, nonionic or amphoteric polymer, a nonpolymeric thickener, an  
5 opacifier, a pearlescent agent, a vitamin, a provitamin, a wax, a natural or synthetic ceramide, a perfume, a colorant, organic or inorganic particles, a preservative, a pH stabilizing agent.

42. The composition as claimed in claim 1, provided in the form of a shampoo, an  
10 after-shampoo, a composition for permanent waving, straightening, dyeing or bleaching the hair, a rinse-out composition to be applied between the two stages of a permanent waving or a hair straightening, or a washing composition for the body.

15 43. The composition as claimed in claim 1, provided in the form of a rinse-out after-shampoo.

44. A method for washing or for treating keratinous materials, comprising applying the composition of Claim 1 thereto.  
20

45. A method for making hair shiny, comprising applying the composition of Claim 1 to hair in need thereof.

46. A method for making hair supple, comprising applying the composition of  
25 Claim 1 to hair in need thereof.